AMENDMENTS TO THE CLAIMS

Please cancel claims 1, 6, 13, 23 and 28, and amend claims 2, 4, 7, 9, 11, 12, 14, 16, 18, 20, 22, 24, 26, 29, 31, 33 and 34. No new matter is believed to be introduced as a result of the aforementioned claim amendments. The following list of claims replaces all previous claim listings in this case.

1. **(Canceled)**

2. **(Currently Amended)** The optical device of claim [[1]] 9, wherein the first and second beam diameters are substantially equal to each other.

3. **(Original)** The optical device of claim 2, wherein at the image position, the optical beam has a numerical aperture in the first plane of beam propagation that is substantially equal to that of the beam in the second plane of beam propagation.

4. **(Currently Amended)** The optical device of claim [[1]] 9, wherein the first lens has a focal length, and wherein the first distance is substantially equal to the first lens focal length.

5. **(Original)** The optical device of claim 4, wherein the second lens has a focal length, and wherein the third distance is substantially equal to the second lens focal length.

6. **(Canceled)**

7. **(Currently Amended)** The optical device of claim [[6]] 9, wherein:
the optical beam incident upon the first lens has a second numerical aperture in the second plane of beam propagation;
the optical fiber has an acceptance numerical aperture associated therewith;
the first and second focal points of origin are separated by a fourth distance; and
the second numerical aperture divided by the acceptance numerical aperture is substantially equal to or less than the second distance divided by the sum of the first focal length and the fourth distance.

8.   **(Original)**   The optical device of claim 7, wherein:

the second numerical aperture divided by the acceptance numerical aperture is substantially equal to the second distance divided by the sum of the first focal length and the fourth distance.

9.   **(Currently Amended)** ~~The optical device of claim 6, wherein:~~ An optical device comprising:

an optical source for producing an optical beam having spaced apart first and second focal points of origin in orthogonal first and second planes of beam propagation of the optical beam, respectively;

a first lens disposed in an optical path of the optical beam and having a first optical focusing power in both the first and second planes of beam propagation, wherein the first lens is disposed at a first distance from the first focal point of origin for generally collimating the optical beam in the first plane of beam propagation and for focusing the optical beam down to a first beam diameter in the second plane of beam propagation at an image position located a second distance from the first lens; and

a second lens disposed in the optical path of the optical beam and having a second optical focusing power in the first plane of beam propagation and generally no optical focusing power in the second plane of beam propagation, wherein the second lens is disposed at a third distance from the image position for focusing the optical beam down to a second beam diameter in the first plane of beam propagation at the image position;

an optical fiber having an input end disposed at the image position for receiving the optical beam;

the optical beam incident upon the first lens has a first numerical aperture in the first plane of beam propagation;

the optical fiber has an acceptance numerical aperture associated therewith; and

the first numerical aperture divided by the acceptance numerical aperture is substantially equal to or less than the second focal length divided by the first focal length.

10.   (Original)   The optical device of claim 9, wherein:

the first numerical aperture divided by the acceptance numerical aperture is substantially equal to the second focal length divided by the first focal length.

11.   (Currently Amended) The optical device of claim [[1]] 9, wherein the second lens is a cylindrical lens.

12.   (Currently Amended) The optical device of claim [[1]] 9, wherein the optical source is a master oscillator power amplifier having a diode laser portion for generating the optical beam and a planar waveguide amplifier portion for amplifying the optical beam, and wherein the second focal point of origin is located approximately at a location where the optical beam exits the diode laser portion, and the first focal point of origin is located approximately at a location where the optical beam exits the planar waveguide amplifier portion.

13.   (Canceled)

14.   (Currently Amended) The optical system of claim [[13]] 20, wherein the first and second beam diameters are substantially equal to each other.

15.   (Original)   The optical system of claim 14, wherein at the image position, the optical beam has a numerical aperture in the first plane of beam propagation that is substantially equal to that of the beam in the second plane of beam propagation.

16.   (Currently Amended) The optical system of claim [[13]] 20, wherein the first lens has a focal length, and wherein the first distance is substantially equal to the first lens focal length.

17.   (Original)   The optical system of claim 16, wherein the second lens has a focal length, and wherein the third distance is substantially equal to the second lens focal length.

18.   **(Currently Amended)** The optical system of claim [[13]] 20, wherein:

the optical beam incident upon the first lens has a second numerical aperture in the second plane of beam propagation;

the optical fiber has an acceptance numerical aperture associated therewith;

the first and second focal points of origin are separated by a fourth distance; and

the second numerical aperture divided by the acceptance numerical aperture is substantially equal to or less than the second distance divided by the sum of the first focal length and the fourth distance.

19.   **(Original)**   The optical system of claim 18, wherein:

the second numerical aperture divided by the acceptance numerical aperture is substantially equal to the second distance divided by the sum of the first focal length and the fourth distance.

20. **(Currently Amended)** ~~The optical system of claim 13, wherein:~~ An optical system for focusing an optical beam into an input face of an optical fiber, wherein the optical beam has spaced apart first and second focal points of origin in orthogonal first and second planes of beam propagation of the optical beam, respectively, the optical system comprising:

a first lens disposed in an optical path of the optical beam and having a first optical focusing power in both the first and second planes of beam propagation, wherein the first lens is disposed at a first distance from the first focal point of origin for generally collimating the optical beam in the first plane of beam propagation and for focusing the optical beam down to a first beam diameter in the second plane of beam propagation at an image position located a second distance from the first lens; and

a second lens disposed in an optical path of the optical beam and having a second optical focusing power in the first plane of beam propagation and generally no focusing power in the second plane of beam propagation, wherein the second lens is disposed at a third distance from the image position for focusing the optical beam down to a second beam diameter in the first plane of beam propagation at the image position;

the optical beam incident upon the first lens has a first numerical aperture in the first plane of beam propagation;

the optical fiber has an acceptance numerical aperture associated therewith; and

the first numerical aperture divided by the acceptance numerical aperture is substantially equal to or less than the second focal length divided by the first focal length.

21. **(Original)** The optical system of claim 20, wherein:

the first numerical aperture divided by the acceptance numerical aperture is substantially equal to the second focal length divided by the first focal length.

22. **(Currently Amended)** The optical system of claim [[13]] 20, wherein the second lens is a cylindrical lens.

23. **(Canceled)**

24.   **(Currently Amended)** The method of claim [[23]] 31, wherein the first and second focused beam diameters are substantially equal to each other.

25.   **(Original)**   The method of claim 24, wherein at the image position, the optical beam has a numerical aperture in the first plane of beam propagation that is substantially equal to that of the beam in the second plane of beam propagation.

26.   **(Currently Amended)** The method of claim [[23]] 31, wherein the first lens has a focal length, and wherein the first distance is substantially equal to the first lens focal length.

27.   **(Original)**   The method of claim 26, wherein the second lens has a focal length, and wherein the third distance is substantially equal to the second lens focal length.

28.   **(Canceled)**

29.   **(Currently Amended)** The method of claim [[28]] 31, wherein:

the optical beam incident upon the first lens has a second numerical aperture in the second plane of beam propagation;

the optical fiber has an acceptance numerical aperture associated therewith;

the first and second focal points of origin are separated by a fourth distance; and

the second numerical aperture divided by the acceptance numerical aperture is substantially equal to or less than the second distance divided by the sum of the first focal length and the fourth distance.

30.   **(Original)**   The method of claim 29, wherein the second numerical aperture divided by the acceptance numerical aperture is substantially equal to the second distance divided by the sum of the first focal length and the fourth distance.

7

31.   (Currently Amended) ~~The method of claim 28, wherein:~~ A method of focusing an astigmatic optical beam, comprising:

producing an optical beam having spaced apart first and second focal points of origin in orthogonal first and second planes of beam propagation of the optical beam, respectively;

placing a first lens in the optical beam and having a first optical focusing power in both the first and second planes of beam propagation, wherein the first lens is placed at a first distance from the first focal point of origin for generally collimating the optical beam in the first plane of beam propagation and for focusing the optical beam down to a first beam diameter in the second plane of beam propagation at an image position located a second distance from the first lens;

placing a second lens in the optical beam and having a second optical focusing power in the first plane of beam propagation and generally no optical focusing power in the second plane of beam propagation, wherein the second lens is placed at a third distance from the image position for focusing the optical beam down to a second beam diameter in the first plane of beam propagation at the image position;

placing an input end of an optical fiber at the image position for receiving the optical beam; and

the optical beam incident upon the first lens has a first numerical aperture in the first plane of beam propagation;

the optical fiber has an acceptance numerical aperture associated therewith; and

the first numerical aperture divided by the acceptance numerical aperture is substantially equal to or less than the second focal length divided by the first focal length.

32.   (Original)   The method of claim 31, wherein the first numerical aperture divided by the acceptance numerical aperture is substantially equal to the second focal length divided by the first focal length.

33.   (Currently Amended) The method of claim [[23]] 31, wherein the second lens is a cylindrical lens.

34.   **(Currently Amended)** The method of claim [[23]] <u>31</u>, wherein producing the optical beam comprises:

generating the optical beam with a diode laser; and

amplifying the generated optical beam with a planar waveguide amplifier;

wherein the second focal point of origin is located approximately at a location where the optical beam exits the diode laser, and the first focal point of origin is located approximately at a location where the optical beam exits the planar waveguide amplifier.

35.   **(Previously Presented)** An optical system for focusing an optical beam into an input face of an optical fiber, wherein the optical beam has spaced apart first and second focal points of origin in orthogonal first and second planes of beam propagation of the optical beam, respectively, the optical system comprising:

a first lens disposed in an optical path of the optical beam and having a first optical focusing power in both the first and second planes of beam propagation, wherein the first lens is disposed at a first distance from the first focal point of origin so as to substantially collimate the optical beam in the first plane of beam propagation and focus the optical beam down to a first beam diameter in the second plane of beam propagation at an image position located a second distance from the first lens; and

a second lens disposed in an optical path of the optical beam and having a second optical focusing power in the first plane of beam propagation, wherein the second lens is disposed at a third distance from the image position so as to focus the optical beam down to a second beam diameter in the first plane of beam propagation at the image position, wherein:

the optical beam incident upon the first lens has a second numerical aperture in the second plane of beam propagation;

the optical fiber has an acceptance numerical aperture associated therewith;

the first and second focal points of origin are separated by a fourth distance; and

the second numerical aperture divided by the acceptance numerical aperture is substantially equal to or less than the second distance divided by the sum of the first focal length and the fourth distance.

36.   (Previously Presented) The optical system of claim 35, wherein:

the second numerical aperture divided by the acceptance numerical aperture is substantially equal to the second distance divided by the sum of the first focal length and the fourth distance.

37.   (Previously Presented) An optical system for focusing an optical beam into an input face of an optical fiber, wherein the optical beam has spaced apart first and second focal points of origin in orthogonal first and second planes of beam propagation of the optical beam, respectively, the optical system comprising:

a first lens disposed in an optical path of the optical beam and having a first optical focusing power in both the first and second planes of beam propagation, wherein the first lens is disposed at a first distance from the first focal point of origin so as to substantially collimate the optical beam in the first plane of beam propagation and focus the optical beam down to a first beam diameter in the second plane of beam propagation at an image position located a second distance from the first lens; and

a second lens disposed in an optical path of the optical beam and having a second optical focusing power in the first plane of beam propagation, wherein the second lens is disposed at a third distance from the image position so as to focus the optical beam down to a second beam diameter in the first plane of beam propagation at the image position, wherein:

the optical beam incident upon the first lens has a first numerical aperture in the first plane of beam propagation;

the optical fiber has an acceptance numerical aperture associated therewith; and

the first numerical aperture divided by the acceptance numerical aperture is substantially equal to or less than the second focal length divided by the first focal length.

38.   (Previously Presented) The optical system of claim 37, wherein:

the first numerical aperture divided by the acceptance numerical aperture is substantially equal to the second focal length divided by the first focal length.